



# LASUNA KALP – THE KEY FOR HEALTH

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## ABSTRACT

In ancient time Kalp Chikitsa was very popular due to its incredible result, like Rasayana effect and prevention from diseases. The syllabus of Kalp is described for mode of action of drugs, their preparations and how to prescribed to the patient. Lasuna Kalp is explained by Acharya Kashyapa and Acharya Sodhala in the Separate chapter in Kashyap Samhita (Vridhjeevaka Tantra) and Gdnigraha respectively. Some modern literature books also mentioned the medicinal properties of garlic in detail in the separate chapter. Generally it is used as a spice for enhancing the taste and aroma of Indian cuisine. The chapter Lasuna Kalp has been attributed to explain the benefits of Lasuna (Garlic) as Ahara, Ausdhi and Rasayana Kalpa. In this context Acharya Kashyapa explained indication, contra-indications, therapeutic uses, doses, duration of Lasuna as a Kalp has been highlighted. Lasuna Kalp explained by Acharya Kashyapa may prove itself a solution when it is judicially used in the prevention and cure of diseases.

**KEY WORDS:** Garlic, Taste, Therapeutic virtues, Medicinal virtues, hyperlipidemia, Twak Roga (skin diseases), Gulma (intra-abdominal tumour), Rajyakshma etc.

### Kalp and Rason Parichaya (Introduction of Kalp and Garlic):

In ancient time Kalp Chikitsa was very popular due to its incredible result, like Rasayana effect and prevention from diseases. Publically “Kalp” word is used for numerous meanings, as – 1. Capability, 2. Less than, 3. Imposed Rules, 4. Definite, 5. Mode of action, 6. Cataclysm, 7. Treatment, 8. One part of Vedang<sup>1</sup>. The syllabus of Kalp is described for mode of action of drugs, their preparations and how to prescribed to the patient<sup>2</sup>. Garlic is a part of our kitchen since ancient times. In Ayurvedic Texts, it is described under the types of Dravya's Sthavara (plants or immobile) - Harit Varga. Generally it is used as a spice for enhancing the taste and aroma of Indian cuisine. Very few of us were aware of its therapeutic and medicinal virtues for health. Garlichas been used as a medicine by medical practitioners since ancient times. Lasuna is grown in almost all the provinces especially in the north-western region, Garwal, Kumaon, Punjab and Kashmir etc. It is a perennial bulbous herb about 1ft. long. Leaves- linear, flat and narrow. Flowers- lax umbels, white in colour, bulbils are also associated with. Bulbs – short, compound, consist of several smaller bulbs called “cloves” and are surrounded by a thin white or pinkish teeth. It has a specific type of strong odour and its taste is characteristically bitter<sup>3</sup>. It has the properties like Snigdha (unctuous), Ushna (hot), Katu (pungent), Guru (heavy), has been alleviate Twak Roga (skin disease), Gulma (abdominal tumor), Pinasa (chronic rhinitis), Ardhavbhedaka (hemispheric), Apasmara (epilepsy) etc. Modernists have also proved that garlic is very beneficial for hyperlipidemia, pleural disorders, rheumatism, Vatavikara, Varna etc. Its consumption is considered prohibited in the scriptures. But the scholars of Ayurveda, knowing the importance of its medicinal values have described it clearly in various texts of Ayurveda.

### Rason Utupatti (Mythological Origin of Garlic):

When Indrani, wife of Indra did not achieved conception for a hundred years, Indra, holding his wife affectionately by his handsome left arm, consoled her and offered her nectar. Indrani becoming pinkish due to beautyfulness, and consoling with affection made her to drink it (nectar). She being delicate and shy due to closeness to her husband and this being essence of nectar when eructation developed, it fell down on the unholy place on the ground. Indra told Indrani that she will be endowed with many sons and this nectar that fell on the ground would also be produced in the form of Rasayana. But due the desecrate place, it will be foul smelling and Dwij (Brahmanas) will not consume it. It will be known as Rason on earth<sup>4</sup>.

Rahu stole the nectar obtained by churning the sea and swallowed it, he was immediately beheaded by God Vishnu. Thus, the drops of nectar fell over the earth and became garlic. Since it is born from the body of a demon, the Dwij (Brahmanas) do not consume it however, as it is born from nectar, so is a very good Rasayana<sup>5</sup>.

### Rason Shabd-Vyutpatti (Etymology):

There are five Rasas found in garlic but it is deficient in one rasa (amla). The per-

sons who have got in depth knowledge of dravyas (drugs) designated this drug “Rason” as it contains five out of six existing Rasas (tastes), devoid of sourness<sup>6</sup>. Basically Rason word consists of two words, Ras, means taste and On, means lack. So, due to lack of one Rasa, it is called “Rason”. The etymology of the Lasuna is defined by Dalhana as- “भलशति भिनलि रोगानि लिशुनम्” (Su.Ut. 61/46- Dalhana) means which alleviates diseases<sup>7</sup>.

### Rason Prayaya (Synonyms of Garlic):

Rason, Rasonak, Uragandha, Yavanesta, Mahaushadh, Malechchhakand, Arishta, Lasuna, Lahasunetc<sup>8</sup>.

English name: Garlic

Latin name: Allium sativum Linn.

Family: Liliaceae

### Rasona Bheda (Types of Garlic):

Acharya Kashyapa has told two types of Lasuna. First is Girij (Pahari) and Second is Khsetraja (local). Girij is beneficial like nectar. In the absence of Girij Lasuna Khsetraja Lasuna should be used<sup>9</sup>.

### Rason Gunas (Properties of Garlic):

Snigdha (aliphatic), Tikshana (sharp), Pichchhila (slimy), Guru (heavy), Laghu (according to Navnitaka), Sara (unstable)<sup>10</sup>.

### Rasadhishthan (Sites of Taste):

There are five Rasas in Rason which are distributed in its various parts<sup>11</sup> –

- 1) Katu Rasa in root.
- 2) Tikta Rasa in leaf.
- 3) Kasaya Rasa in stem.
- 4) Lavana Rasa in stem tip/terminal bud.
- 5) Madhura Rasa in seeds.

### Rason Virya-Vipaka:

Virya - Ushna

Vipaka - Katu<sup>12</sup>

### Chemical Composition:

Several types of chemical constituents are found in its oil and essence<sup>13</sup>:

Volatile oils	0.1 to 0.3 %	Alcoholic extract
Allyl disulphide		Allicin
Allyl propyldisulphide		Allecetion-I
Polysulphide		Allicetion-II

**Nutritional Value<sup>14</sup>:**

In 100gms			
Moisture	59.0gm	<b>Minerals</b>	<b>1.0gm</b>
Protein	6.3gm	-Magnesium	-25mg
Fat	0.5gm	-Sodium	-17mg
Carbohydrates -Sugar -Dietary fibre	33.00gm - 1gm - 2.1gm	-Zinc	-1.16mg
		-Calcium	-181mg
		-Phosphorus	-153mg
		-Iron	-1.7mg
Energy	149Kcal		

**Karma (Action):**

The Rason is heavy due to being Madhura (sweet) and good Bramhana (anabolic) due to association of unctuousness. It cures common diseases, increases longevity, appetite, aphrodisiac, blessed or fortunate and foremost for disease free state. It is retainer of memory, intellect, strength, age, complexion and eyes, producer of good smell in mouth, cleaner of the channels. It is producer of Sukra, Sonita, Garbha, negation of Lajja (shyness), hair, stability of life<sup>15</sup>.

**Rason Matra (Dosages of Garlic):**

Its dosages and rule of consumption is determined according to the Jatharagni (digestive/metabolic fire), Kala (period) and Satmya (congenial). Its Laghu (small) Matra is 4 Pala (160 gm), Madhyam (medium) Matra is 6 Pala (240 gm), Shreshtha (best) Matra is 8 or 10 Pala (320 or 400 gm). The numerical dose of dry, strong seeds (cloves) along with peels is 100, 60, and 50 (best, medium and low). The dose of green Lasuna determines in Pala or else one should eat the prepared till ones has Utsaha (enthusiasm) or becomes Murchhita (unconscious).

The best dose of Lasuna mixed with wine is - 01 Kudava (320gms),

Dose of its juice is - 0.5 Kudava (160gms)

Dose of its paste is - 01 Pala (40gms).

After consuming the above dosage, one should take Shali rice with Yusha, milk or Mans Rasa (meat juice). Drink only wine mixed with water or drink Kanji or fruit juice when thirsty. The above dose has been prescribed for the Kalpa use of garlic.

For medicinal use, the quantity of Lasuna is as follows:

Kalka (paste) -3-6gms and Oil- 1-2drops<sup>16</sup>.

**Rason Sewan Kala (Timeto consume the Garlic):**

It can be advised to them who have Teekshna Jatharagni (digestive/metabolic fire), and Shreshtha Bala (strength) for all diseases. According to hindu months in Pausha (Last month of Hemanta) and Magha (First month of Shishira) Lasuna (which is stabiliser of life and beneficial to heart) without peel should be used. In another Ayurvedic text "Navnitaka" Vasanta (Chaitra and Vaishakha) are the suitable time for intake of Lasuna<sup>17</sup>.

**Rason Sewan Vidhi (Method to consume the Garlic):**

Lasuna is taken in Vata disorders with Ghrit, in Pittaj disorders with Sharkara and in Kaphaja disorders with Madhu (honey). On favourable day, the adamant man having good appetite and digestive fire, free from anxiety, living pleasantly in a place not having direct entry of air, possessing blankets of hide of deer, silk, cotton, hairy hide of lion or elephant etc. and wearing clean clothes should use Lasuna. Discarding the leaves, the seeds (cloves) and stem after cutting in small pieces should be inundated in sufficient Ghrit. Befitting the child (his condition or disease) the fresh Ghrit made with fresh butter and recently extracted oil should be used. After divide in small pieces the garlic cloves should be fried sufficiently in clarified butter while they settle down. It should be used after having good unctuous for two, three, five, eight or ten days, avoiding worry about own self, avoiding day sleeping and tooth-prick; having proper digestion of diet, getting up pleasantly, having recitation of auspicious hymns by Brahmanas in sitting posture. During this procedure hot water should be used. Except Mulaka (radish) all Haritakyadi Varga (green vegetable) should also be given<sup>18</sup>.

**Rason Falshruti (Resultant of consuming the Garlic):**

This Lasun, born from nectar is a Rasayana. The teeth, flesh, nails, moustache, beard, hair, complexion, age and strength of the human beings eating Lasuna never declines. The breast of women never fall by daily use of Lasuna, neither their beauty nor progeny and strength or longevity decreases. Their fortune increases and youth becomes stable. The woman remains clean even after excessive use of Lasuna and the disease caused by coitus do not trouble them.

She never gets seized with diseases based in sacral region, hips and other body parts. She neither becomes infertile nor ugly looking.

The man becomes Dridha (stout), Medhavi (intelligent), Dirghayu (longevity), handsome, with Darshniya Santan (good progeny), does not get tired during coitus and retains Shukra. With as many women he copulates these achieve conception, the child having fragrance of Nilotpala and Padma is born. The body attains softness and the throat sweetness also, it is pacifier of diseases of Grahani and promoter of Jatharagni (metabolic fire) of body<sup>19</sup>.

**Rason Sewan Yoga (Indications of Garlic):**

Lasuna is beneficial indigestion, fracture and diseases of bones, all Vataj Roga, Aartav Roga (menstrual disorders), Shukra Dosha (seminal disorders), Bhrama (confusion/giddiness), Kasa (cough), Kusthas (skin disorders), Krimi Roga (worm infestation), Gulma (intra-abdominal tumour), Kilasa (skindisorder), Kandu (itching), Visphota (blisters), Vaivarnya (discolouration), Timira (cataract), Shwasa (dyspnoea), Rataundhi (night blindness), Alpa Aahara (inadequate diet), Jirna Jwara (chronic fever), Vidaha (burning sensation), Trityaka and Chaturthaka Jwara (tertiary and quarantine fever), Srotavrodh (diseases of channels), Jadta (stiffness of body), Upshosha (emaciation), Ashmari (stone), Mutrakrichchha (dysuria), Kundala (atony of bladder), Bhagandra (fistula-in-ano), Pradara (meno-metrorrhagia), Pliha Roga (diseases of spleen), Pangulta (lameness), Vata rakta (gout) and use for increase of Medha (intellect), Jatharagni (digestive/metabolic fire) and Bala (strength)<sup>20</sup>.

**Rason Sewan Ayogya (Contra-indications of Garlic):**

It should not be used in the diseases of Kapha and Pitta, Ksheena Vyakti (emaciated person), Vriddhavastha (old age), Agnimandh (decrease digestive fire), Kamla (Jaundice), Garbhani (pregnant woman), Shishu (child), Urustambha (stiffness of thighs), Vibandha (constipation), Kantha and Mukha Roga (throat and mouth diseases), Vamit (having emesis), Virikta (having purgation), Shirovirechan (nasal instillation) and excess of Shosha (desiccation recently), Trishna (thirst), Chhardi (vomiting), Hikka (hiccough), Shwasa (dyspnoea), Adharitya (absence of patience), Asahaya (helplessness), Daridra (poor), Duratma (bad natured) and by those having received Niruha Vasti (cleansing enema) the Lasun also should not be used<sup>21</sup>.

**Rason Sewan Kala me Pathya (Congenial during Indications of Garlic):**

Poopta (bread with dry fragrant, palatable and made of dough of barley, wheat mixed with salt and cooked over baked earthen pot), hot Polika (Chapati) made of Shali; prepared with Mudga and Kulmasa, bolus of Saktu (parched flour) with five lines mixed with good salt but less oleaginous substances should be eaten. Lava (quail), Ena (a kind of deer), Titara (partridge), Shashaka (rabbit), Kapinjala (the Catakabird), Chakora (Greek partridge said to feed on moon-beam) and other wild birds and animals should be taken in Samisha (non-veg) Aahara. Hot meat medicated with Lavana (salt), Sneha (oil), Veshana (spices), and Kola (Indian jujube), Amla (Indian gooseberry), Anardana (pomegranate) and without sour substances should be taken. The one who eat too much fatty substances, to him dry food items are beneficial and to the person using little fatty substances, good oleaginous food items should be given in the diet.

The person suffering from Kustha (skin diseases), Shwasa (dyspnoea), Kasa (cough), Prameha (Diabetes), Vatakundala (atony of bladder), Arsha (piles) and Gulma (intra abdominal tumour) the garlic should be eaten without water. After eating Lasuna, for some days soup should be used in diet and drinks. Hot Lasuna paste one Pala with Dadima, meat, Ghrit and oil (two Pala paste of each), mixed with Kasaundi (spices) and salt should be given on desire to eating. Little quantity of cooked rice of Shweta Shali and Sathi mixed with curd and buttermilk should be eaten for three days with Yusa Anupana. Afterwards for another three days Sukta (vinegar) and after that Mand (scum) of Mudga should be taken. The one sleeping and sitting in a place having no direct entry of air<sup>22</sup>.

**Rason Sewan Kala Me Apathya (Non-congenials during Indication Garlic):**

One should give up Viruddha (incomputable to each other) or likely to causes Vidaha (burning sensation), Shaka (vegetables), Gorasa (milk and milk products), Abhisandi Anna (moisture producing cereals), Mansa (meat) and Ikshu Vikara (sugar-cane and its products). Adhva (travelling), Maithuna (coitus), Chinta (worry), Shoka (grief), Vyayama (exercise), Shoshaka Bhava (desiccative work) and other Ahitkara Bhava (non-beneficial work) should be contra-indicated during Lasuna Kalpa<sup>23</sup>.

**Rason Upadrava (Complications of Garlic):**

During use of Lasuna, use of cold things should be given up. Due to use of cold things and oleaginous substances one gets ascites. Due to use of oleaginous substances and egg fear of Pandu (anemia) and Shophya (oedema/inflammation) diseases and by use of unctuous substances as well as heavy diet, the abnormalities of Grahani and Kamala (jaundice) develop.

By use of Dushit Madya (contaminated liquor), Machhli (fish) and Gaududgha (cow milk) the Jwara (fever), Kustha (skin diseases) and Ksaya (phthisis/emaciation) develop. By use of Lasuna during dry and hot season all Pittaj Rogas develop. and colic, diarrhoea, tympanities, nausea, vomiting, anorexia, hiccough, cholera, dyspnoea, sleepiness and other complications also develop<sup>24</sup>.

**Upadrava Chikitsa (Treatment of complications):**

Obviation of complication should be done by respective treatment. After heaviness develop of body due to vomiting, indigestion, burning sensation and Kapha Dosha previously go for Langhana (fast) after that using Pathya (congeal) according to strength of the body and disease Virechana, Vamana, Nasya and Kavalgriha should be used. Pungent food items should be avoided during this treatment. The wise person should have faith (for regaining health) and give up haste and agitation. After that one should be made to drink the Ghrita mixed with Triphala and salt for three days in the quantity which does not influence the diet and later be given cooked food for eating. Mild purgation should be given with hot Ghrita mixed with Trivrit, Triphala and Lavana followed by drinking hot water<sup>25</sup>.

**Rason Prayoga (Uses of Garlic): (According to Acharya Charak)**

The health benefits of Lasuna are based on its described properties in Ayurveda. It shows Vrishya (Shukra Vardhak) effect due to Snigdha and Pichchhila (unctuous and slimy) properties using with milk or butter. It maintains the quality of sperms and Ojas (vital essence) resulting developed immunity. Use of Lasuna with clarified butter minimise the complications, persists due to Ushna (hot), Tikshna (sharpness) and Katu (pungent) properties.

Lasuna alleviates Vata, Krimi Roga (helminthiasis), Kustha (skin disease), Kilasa (leucoderma), Gulma, Shirogaurav, Shirahshool (headache), Pinasa (rhinitis), Ardhabheda (hemiparesis), Apsmara (epilepsy) etc. Lasuna is used in Niruh-Vasti (enema) for worms and Kaphaj Roga three or five days. Vasti should be prepared with Madhu (honey), Taila (oil) and Lavana (salt). In Vataj Gulma (intra abdominal tumour), Udvartana (upcoming Vata), Gridhrasi (sciatica), Visham-Jwara (intermittent fever), Hrida-Roga (heart disease), Vidradhi (abscess), Shotha (inflammation) Lasuna is used as Lasuna-Kshira, prepared with Lasuna, Udana and milk. In intermittent fever Lasuna is used in the form of paste with Tila-Taila (sesame oil) before meal. Kanakakshiri-Taila is typically used in worms and itching. Lasuna is one ingredient of this Taila. Lasuna is the main ingredient of Lasunadya Ghrit and second Lasunadya Ghrit, which are very much effective in Unmada (insanity) and Apsmara (epilepsy). Taila prepared with Lasuna and other drugs is used for Abhyanga (massage) and Dhooan (fumigation) in Apsmara (epilepsy)<sup>26</sup>.

**Rason Prayoga (Uses of Garlic): (According to Acharya Sushruta)**

According to Acharya Sushruta it is beneficial for Netra Roga (eye diseases), Asthibhagna (fracture) and promotes physical strength, mental strength, Vrishya (aphrodisiac) effect, Medha (intellect), Swara (voice), Varna (complexion).

Rasona and its synonyms are described first time in Sushruta Samhita. Lasuna combined with other drugs is used for Shirovirechan. It is a herb and used for vegetable purpose. It alleviates Hrid-Roga (heart disease), Jirna-Jwara (chronic fever), Kukshi-Shoola (Colic), Vibandha (constipation), Gulma (intra abdominal tumour), Aruchi (anorexia), Kasa (cough), Shopha (inflammation), Arsha (piles), Kustha (skin diseases), Agnimandha (deficiency of digestive fire), Krimi (worms), Vataj-Roga, Shwas (asthma) and Kaphaj-Roga. It is best medicine for Vataj-Roga except Pittavrita and Raktavrita Vata. Lasuna is lactogenic for lactating mothers. Milk prepared with Lasuna, Hingu, Sauvachala and Vacha is beneficial for hardness of stool. Varti prepared by Lasuna and other drugs is used in Kaphaj Netra Roga. Lekhyanjana prepared by Lasuna and other herbal drugs and minerals is very much effective in Arjuna-Netra Roga. Lasuna is an ingredient of Manahshilanjana, which cure Netra Roga like Kandu (itching), Timir (cataract), Shuklarma (pterygium) and Raktaraji. Combination of all the four Snehas prepared with Lasuna, other drugs and Kanji, Curd or buttermilk are used in earache. Lukewarm juice of Lasuna with other drugs is also effective in earache. Lukewarm juice of Lasuna is very much effective in Kaphaj earache. Varti prepared by Lasuna with other drugs is used for Nasya, Anjana, Abhyanga, Dhoompan and body pack in Unmada (insanity)<sup>27</sup>.

**Rason Prayoga (Uses of Garlic): (According to Acharya Vagbhata)**

Generally drugs with Katu Vipak are not Vrishya. According to Astanghriddya, Lasuna is only the drug which is Vrishya (aphrodisiac) while its Vipaka is Katu (pungent). Lasuna is Hridya (good for heart), Keshya (good for hairs), Vrishya (aphrodisiac), Deepana (good for digestive fire), Bhagnasandhanaka (fracture union forming), Rasayana (preventive in nature), Lasuna juice is used for Murchha (faintness) and Sanyasa (complete exhaustion) caused by alcoholism. Lasuna alleviates fever, Vataja Roga, Kilasa, Kaphaja Roga, Kustha, Gulma, Arsha, Prameha, Krimi, Hidhma, Pinasa, Shwasa, Kasa. Lasuna with other herbal drugs and minerals is used to treat Apsmara (epilepsy)<sup>28</sup>.

**Deliberations During Consuming the Garlic:**

Regular use of Lasuna as food leads to Pitta vitiation. Vitiating of Pitta may cause Raktapitta (hemorrhage). Annanabhilasha (revulsion to food), Bhuktasyavidaha (burning sensation), Shuktaamlagandhrasaudgara (belching with sour like smell and taste), Chharderbhikshanamaagamaana (nausea), Chharditasaya Vibhatsata (vomiting with blood), Swarabhedha (disturbed voice), Gatranam Sadanam (malaise), Paridaha (whole body burning sensation) etc are the prodromal symptoms of this type of hemorrhage. Acharya Vagbhata described that regular use of Lasuna causes Rakta-Pitta Pradusana, which may leads to hemorrhage<sup>29</sup>.

**CONCLUSION:**

According to Ayurvedic texts it is proved that Lasuna is continuously in use since before Christ. Several evidences are available in Vedic literature also. In ancient period its other name Rasona was very much popular. Lasuna name is the indication of destroyer of diseases. Botanical name of Lasuna is Allium sativum. Simply Allium word means 'hot' which is present in Lasuna. Lasuna is used as vegetable as well as medicine since more than 3000 years and well known as traditional medicine in the world. It is much more beneficial for health. For example it is aphrodisiac, intellect promoter, strength promoter, lactogenic, beneficial for vision, complexion and hairs etc. It alleviates various diseases like chronic fever, tumour, colic, piles, skin disease, dyspnoea, worms, ophthalmic diseases, heart disease, tuberculosis, insanity, epilepsy etc. Hence, the researches in the field of health with special reference to Lasuna (Allium sativum), have scientifically proved the medicinal effect of Lasuna, mentioned in Ayurvedic texts. Nowadays Lasuna is used as an anti-hyperlipidemic agent also.

**BIBLIOGRAPHY:**

- I. Sanskrit Hindi Kosha of Vamana Shivram Apte, Chaukhambha Sanskrit Bhavan, Varanasi, Reprint 2016, Page-258, Kritpratya-Ka.
- II. Charak Samhita Poorvardh Vidyotini Tika by Kashinath Shastri, Chaukhambha Sanskrit Sansthan, Varanasi, Kalpasthana, Ch.-01, Sl.-03.
- III. Bhavaprakasa Poorvardh Vidyotini Tika by Shri Brhamshankar Mishra, Chaukhambha Sanskrit Sansthan, Varanasi, Haritakyadivarga, 77-Lasun.
- IV. Kashyap Samhita Vidyotini Tika by Shri Satyapal, Chaukhambha Sanskrit Sansthan, Varanasi, Kalpasthan, Lasunkalp, Sl.07-12.
- V. Gadnigraha Vidyotini Tika by Indradev Tripathi, Chaukhambha Sanskrit Sansthan, Varanasi, Aushadhikalpadihar, Lasunkalpa, Sl.- 212-312.
- VI. Astangahrdaya Vidyotini Tika by Atridev Gupta, Chaukhambha Sanskrit Sansthan, Varanasi, Uttarsthan Ch. 39, Sl.- 111-112.
- VII. Bhavaprakasa Poorvardh Vidyotini Tika by Shri Brhamshankar Mishra Chaukhambha Sanskrit Sansthan, Varanasi, Haritakyadivarga, Lasun, Sl.-218.
- VIII. Bhavaprakasa Poorvardh Vidyotini Tika by Shri Brhamshankar Mishra Chaukhambha Sanskrit Sansthan, Varanasi, Haritakyadivarga, Lasun, Sl.-219.
- IX. Sushruta Samhita Poorvardh Ayurvedattvasandipika Tika by Dr. Ambikadutt Shastri, Chaukhambha Sanskrit Sansthan, Varanasi, Sutrasthan, Ch.-46, Sl.-244-245 (Dalhana).
- X. Bhavaprakasa Poorvardh Vidyotini Tika by Shri Brhamshankar Mishra Chaukhambha Sanskrit Sansthan, Varanasi, Haritakyadivarga, Lasun, Sl.-217.
- XI. Kashyap Samhita Vidyotini Tika by Shri Satyapal, Chaukhambha Sanskrit Sansthan, Varanasi, Kalpasthan, Lasunkalp, Sl.-114.
- XII. Dravyaguna Vijnana Part-II, Prof. P.V.Sharma, Chaukhambha Bharati Academy Varanasi, Reprint-2003, 26 Rason, Page 72.
- XIII. Bhavaprakasa Poorvardh Vidyotini Tika by Shri Brhamshankar Mishra Chaukhambha Sanskrit Sansthan, Varanasi, Haritakyadivarga, Lasun Sl.- 220.
- XIV. Charak Samhita Poorvardh Vidyotini Tika by Kashinath Shastri, Chaukhambha Sanskrit Sansthan, Varanasi, Sutrasthan, Ch.-27, Sl.-176.
- XV. Bhavaprakasa Poorvardh Vidyotini Tika by Shri Brhamshankar Mishra Chaukhambha Sanskrit Sansthan, Varanasi, Haritakyadivarga, Lasun, Sl.-221.
- XVI. Astangahrdaya Vidyotini Tika by Atridev Gupta, Chaukhambha Sanskrit Sansthan, Varanasi, Sutrasthan, Ch.-6, Sl.-109.
- XVII. Sushruta Samhita Poorvardh Ayurvedattvasandipika Tika by Dr. Ambikadutt Shastri, Chaukhambha Sanskrit Sansthan, Varanasi, Sutrasthan, Ch.-46, Sl.-244-245.
- XVIII. Bhavaprakasa Poorvardh Vidyotini Tika by Shri Brhamshankar Mishra Chaukhambha Sanskrit Sansthan, Varanasi, Haritakyadivarga, 77-Lasuna (delibration).
- X. I X have%2520a%2520characteristic%2520pungent,they%2520are%2520crushed %2520or%2520chopped.&ved=2ahUKEWiah7wsz3AhVNzzgGHbGFCW AQ FnoECBAQBQ&usq=AOvVawIzmYqnGHgF3FaSrZXgEP11
- XX. Kashyap Samhita Vidyotini Tika by Shri Satyapal, Chaukhambha Sanskrit Sansthan, Varanasi, Kalpasthan, Lasunkalp, Sl. 15-17.
- XXI. Astangahrdaya Vidyotini Tika by Atridev Gupta, Chaukhambha Sanskrit Sansthan, Varanasi, Sutrasthan, Ch.-6, Sl.-110-111.
- XXII. Charak Samhita Poorvardh Vidyotini Tika by Kashinath Shastri, Chaukhambha Sanskrit Sansthan, Varanasi, Sutrasthan, Ch.-27, Sl.-176.
- XXIII. Sushruta Samhita Poorvardh Ayurvedattvasandipika by Dr. Ambikadutt Shastri Chaukhambha Sanskrit Sansthan, Varanasi, Sutrasthan, Ch.-46, Sl.-244-245.
- XXIV. Kashyap Samhita Vidyotini Tika by Shri Satyapal, Chaukhambha Sanskrit Sansthan, Varanasi, Kalpasthan, Lasunkalp, Sl.-36-38.
- XXV. Astangahrdaya Vidyotini Tika by Atridev Gupta, Chaukhambha Sanskrit Sansthan, Varanasi, Uttarsthansthan, Ch.-39, Sl.-122-124.
- XXVI. Dravyaguna Vijnana Vol-II, Prof. P.V.Sharma, Chaukhambha Bharati Academy Varanasi, Reprint-2003, 26 Rason, Page-74.
- XXVII. Kashyap Samhita Vidyotini Tika by Shri Satyapal, Chaukhambha Sanskrit Sansthan, Varanasi, Kalpasthan, Lasunkalp, Sl.-35.
- XXVIII. Kashyap Samhita Vidyotini Tika by Shri Satyapal, Chaukhambha Sanskrit Sansthan, Varanasi, Kalpasthan, Lasunkalp, Sl.-39-47.
- XXIX. Dravyaguna Vijnana Vol-II, Prof. P.V.Sharma, Chaukhambha Bharati Academy Varanasi, Reprint-2003, 26 Rason, Page-74.
- XXX. Kashyap Samhita Vidyotini Tika by Shri Satyapal, Chaukhambha Sanskrit Sansthan, Varanasi, Kalpasthan, Lasunkalp, Sl.-18-25.
- XXXI. Kashyap Samhita Vidyotini Tika by Shri Satyapal, Chaukhambha Sanskrit Sansthan, Varanasi, Kalpasthan, Lasunkalp, Sl.-26-30 & 35.
- XXXII. Kashyap Samhita Vidyotini Tika by Shri Satyapal, Chaukhambha Sanskrit Sansthan, Varanasi, Kalpasthan, Lasunkalp, Sl.-31-34.
- XXXIII. Kashyap Samhita Vidyotini Tika by Shri Satyapal, Chaukhambha Sanskrit Sansthan, Varanasi, Kalpasthan, Lasunkalp, Sl.-60-70, 72.
- XXXIV. Kashyap Samhita Vidyotini Tika by Shri Satyapal, Chaukhambha Sanskrit Sansthan, Varanasi, Kalpasthan, Lasunkalp, Sl.-71-72.
- XXXV. Kashyap Samhita Vidyotini Tika by Shri Satyapal, Chaukhambha Sanskrit Sansthan, Varanasi, Kalpasthan, Lasunkalp, Sl.-73-76.
- XXXVI. Kashyap Samhita Vidyotini Tika by Shri Satyapal, Chaukhambha Sanskrit

- Sansthan, Varanasi, Kalpsthana, Lasunkalp, Sl.-77-84.
- XXXVII. Charak Samhita Poorvardh Vidyotini Tika by Kashinath Shastri, Chaukhambha Sanskrit Sansthan, Varanasi, Sutrasthana, Ch.-27, Sl.-176, Ch.-02, Sl.-5-6, Vimansthana, Ch.-08, Sl.-142, Ch.-08, Sl.-151, Chikitsasthana, Ch.-03, Sl.-304, Ch.-05, Sl.-94-95, Ch.-09, Sl.-49-56, Ch.-10, Sl.-34-36.
- XXXVIII. Sushruta Samhita Poorvardh Ayurvedtattvasandipika Tika by Dr.Ambikadutt Shastri, Chaukhambha Sanskrit Sansthan, Varanasi, Sutrasthana, Ch.-39, Sl.-06, Ch.-46, Sl.-221, Ch.-46, Sl.-244-245, Sharirasthana, Ch.-10, Sl.-34, Ch.-10, Sl.-61 (E), Uttartantra, Ch.-11, Sl.-07-10, Ch.-12, Sl.-24-27, Ch.-18, Sl.-100-102, Ch.-21, Sl.-15-17, Ch.-21, Sl.-32-33, Ch.-62, Sl.-31-33.
- XXXIX. Astangahrdaya Vidyotini Tika by AtridevGupta, Chaukhambha Sanskrit Sansthan, Varanasi, Sutrasthana Ch.-06, Sl.-109-111, Ch.-10, Sl.-35. Chikitsasthana Ch.-01, Sl.-155-156, Ch.-07, Sl.-71, Ch.-14, Sl.-22, Ch.-14, Sl.-45-46, Uttarasthana, Ch.-39, Sl.-111-112, Ch.-40, Sl.-52,
- XL. Astangahrdaya Ayurvedrasayana Tika by Hemadri, Chaukhambha Sanskrit Sansthan, Varanasi, Chikitsasthana Ch.-06, Sl.-109-111.